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DERWENT-WEEK: 198148

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TITLE: Mixture preparation for IC engine -
with gas separator
in air inlet to isolate oxygen for
subsequent mixing with
fuel

INVENTOR: VOEHRINGER, K

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PATENT-FAMILY:

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LANGUAGE	PAGES
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ABSTRACTED-PUB-NO: DE 3018634A

BASIC-ABSTRACT:

The object of the fuel mixture preparation is to eliminate gases, chiefly nitrogen, which can give rise to undesirable exhaust products, and also to achieve actual gasification of the fuel-oxygen mixture before injection into the cylinders. The latter gives more complete combustion and thus also assists in less noxious exhaust emissions. Air (4) is drawn in through an inlet duct (2) and fed to a centrifugal separator (1). It is driven by an exhaust gas turbine (7). Nitrogen, having a higher molecular weight

than the other gases,
is expelled (12,13) to atmosphere by the centrifuge action.
Oxygen passes
through a duct in the centre of the centrifuge and turbine
shaft (6) emerging
into a feed pipe (14) to the gasifier.

By passing through the turbine spindle the oxygen picks up
heat so that when
mixed (15) with the metered fuel the mixture more readily
forms a gas instead
of fine droplets in the oxygen. The carbon dioxide and
rare gases which pass
from the centrifuge with the oxygen play no significant
part in combustion and
do not contribute to the formation of undesirable
emissions.

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Title - TIX (1):

Mixture preparation for IC engine - with gas separator in air inlet to isolate oxygen for subsequent mixing with fuel

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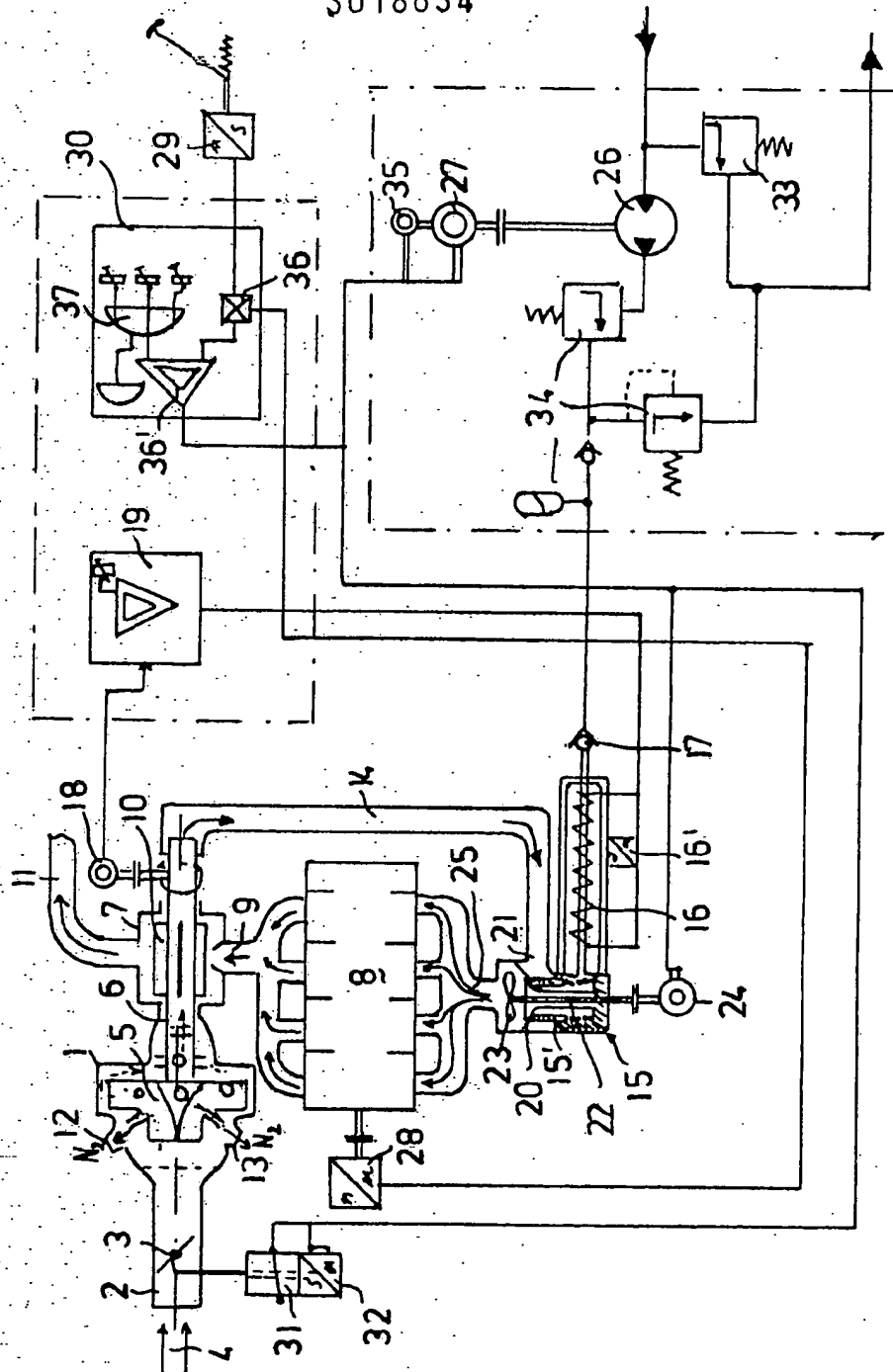


Fig. 1

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